

## **REMARKS**

### **I. INTRODUCTORY REMARKS**

Upon entry of this Amendment, claims 12-22, 26-28, 32-33, 38-40, and 44-49 will be pending in the application. The Applicant gratefully acknowledges the indication of allowable subject matter in claims 12-22, 26-28, 39, 45, and 48. By this Amendment, claims 32, 38, 42, and 47 are amended to more particularly recite the features of the claimed invention. Withdrawn claims 1-11 and 25, as well as claims 23, 24, 29-31, 34-37, and 41-43, were previously canceled without prejudice or disclaimer and Applicant expressly reserves the right to pursue the subject matter of such claims in a related continuation or divisional application. The Applicant also thanks Examiner Sergent for his time during the interview on January 22, 2009. In view of the foregoing amendments and following remarks, the Applicant respectfully submits that the application is in condition for allowance. Reconsideration and withdrawal of the rejections are respectfully requested.

### **II. SPECIES ELECTION**

On December 13, 2004, the Office mailed out an election requirement in the instant application. The election requirement demanded election between various species of thermoplastic polymer recited in the claims. In response, Applicant filed an election on January 3, 2005, in which copoly (ether-ester-amide) polymer was elected for examination on the merits. Upon reviewing the most recent Office Action dated November 24, 2008, however, the Applicant notes that the rejections appear to be based on "polyamide." *See, e.g.,* Office Action, page 3. Polyamide (e.g., nylon) is not the same as the elected species copoly (ether-ester-amide) polymer, nor is it the same as a polyamide elastomer polymer recited in some of the claims. *See, e.g.,* paragraphs 0094 and 0098 of the publication of the instant application. Therefore, the Applicant respectfully requests that the Office confirm the patentability of the elected species, copoly (ether-ester-amide) polymer, and that examination on the merits is proceeding with respect to all claimed species.

### III. CLAIM REJECTIONS UNDER 35 U.S.C. § 102

In numbered paragraph 3 on pages 2-3 of the Office Action dated November 24, 2008, claims 44 and 46 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,444,816 to Richards *et al.* (“Richards”). The rejection is respectfully traversed. Nevertheless, in the interest of expediting prosecution, claim 44 is hereby amended to more particularly recite the features of the method for producing a thermoset article possessing a shape memory.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *see* M.P.E.P. § 2131. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Here, claim 44, for example recites a “radiation crosslinkable composition comprising (a) a thermoplastic polymer selected from the group consisting of a polyamide elastomer polymer, nylon, a copolyester copolymer of poly(1,4-butanediol terephthalate) and poly(alkylene ether terephthalate), a copoly(ether-ester-amide) polymer, copolymers of polylaurinlactam and polytetrahydrofuran, a reaction product of a polyisocyanate and a polyahl, and combinations thereof”. As noted above, in the election filed January 3, 2005, the Applicant elected the species of copoly (ether-ester-amide) polymer. Copoly (ether-ester-amide) polymer is not the same as nylon or a polyamide elastomer polymer. *See, e.g.*, paragraphs 0094 and 0098 of the publication of the instant application.

In contrast, Richards purportedly discloses “[p]olyamides . . . cross-linked by irradiation in the presence of an unsaturated cross-linking agent, preferably triallylisocyanurate” (abstract), . . . More specifically, Richards discloses unsaturated radiation crosslinking agents only with respect to nylon 11 and 12 homopolymers or nylon 11 and 12 copolymers (wherein the other copolymer component is another polyamide such as Nylon 6, Nylon 6,6, Nylon 6,9, Nylon 6,10 or Nylon 6,12). The polyamide polymers and copolymers disclosed in Richards are not the same as the elected species (i.e., copoly (ether-ester-amide) polymer). Furthermore, Richards fails to teach or suggest that the monomer cross-linker is an acrylate monomer crosslinker, a methacrylate monomer crosslinker, or a combination thereof. Therefore, it is respectfully submitted that

Richards fails to teach or suggest each and every element as set forth in claim 44, at least with regard to the elected species.

Accordingly, Richards does not anticipate at least claim 44. Claims 45-46 depend from claim 44 and are submitted as being allowable for at least the same reasons. Notwithstanding the foregoing, claim 44 does recite nylon (polyamide) as a non-elected species. Accordingly, claim 44 is hereby amended, in the interest of expediting prosecution, to recite “the proviso that when the thermoplastic polymer is nylon, the monomer cross-linker is an acrylate crosslinker, a methacrylate crosslinker, or a combination thereof.” Reconsideration and withdrawal of the rejection are respectfully requested.

#### **IV. CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

In numbered paragraphs 4-5 on page 3-4 of the Office Action, claims 32, 33, 38, 40, 44, 46, 47, and 49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,765,682 to Bley *et al.* (“Bley”), in view of Richards. The rejection is respectfully traversed. Nevertheless, in the interest of expediting prosecution, claims 32, 38, 44, and 47 are hereby amended to more particularly recite the features of the claimed invention. In view of the foregoing amendments and following remarks, it is respectfully submitted that claims 32, 33, 38-40, and 44-49 are allowable, at least with regard to the examined species. Reconsideration and withdrawal of the rejection are respectfully requested.

In rejecting claims 32, 33, 38, 40, 44, 46, 47, and 49, the Office Action cites Bley and states that “Bley *et al.* disclose the encapsulation of a medical device with a shape-memory (i.e.; heat shrinkable) polymeric sheath.” It is respectfully submitted, however, that although Bley describes “a sheath which surrounds and contains the medical device” (*see abstract*) which sheath “can be . . . heat shrinkable” (*see column 5, lines 48-49*), Bley does not teach or suggest that the sheath is formed of a shape memory material. Indeed, Bley uses the phrase “shape memory material” exclusively in reference to the medical device (*see, e.g., column 5, lines*). More specifically, Bley states that

The present invention is directed to a package for ***a medical device made of an expandable or shape memory material***, the package comprises a sheath which surrounds and contains the medical device, and has an appropriate size relative to the medical device and is of sufficient strength that upon exposure to conditions which

would cause the medical device to expand or change its shape it is restrained from such shape change or expansion.

Column 3, lines 43-50 (emphasis added). The title is particularly instructive and recites “Restrictive package for expandable or shape memory medical devices and method of preventing premature change of same.” The “restrictive package” is the described sheath which may purportedly include a peel-away or tear-away feature to provide access to the medical device. See column 3, lines 53-55. Thus, the base reference Bley fails to teach or suggest a “device to be wholly or partially encapsulated is placed within the expanded shaped object with “memory”, and wherein heat is applied to cause the expanded crosslinked encapsulation composition with “memory” to contract and wholly or partially encapsulate the device within” as recited in at least claim 32. Richards fails to remedy this deficiency.

Furthermore, for at least the same reasons set forth above with regard to claim 44, it is respectfully submitted that Richards fails to teach or suggest each and every element as set forth in claims 32, 38, 44, and 47, as least with regard to the elected species of copoly (ether-ester-amide) polymer. Bley, alone or in combination with Richards, also fails to teach or suggest the elected species. Nevertheless, by this Amendment, claims 32, 38, 44, and 47 are amended to recite “the proviso that when the thermoplastic polymer is nylon, the monomer cross-linker is an acrylate monomer crosslinker, a methacrylate monomer crosslinker, or a combination thereof.” Accordingly, and as acknowledged by the Examiner, neither one of Bley or Richards, alone or in combination, teach or suggest the wholly or partially encapsulated device recited in amended claim 32, which now requires use of an inventive composition. Claim 33 depends from claim 32 and is believed to be allowable for at least the same reasons. Likewise, neither one of Bley or Richards, alone or in combination, teach or suggest the features recited in amended claims 38, 44, and 47. Claims 39-40, 45-46, and 48-49 depend variously from claims 38, 44, and 47 and are believed to be allowable for at least the same reasons. Reconsideration and withdrawal of the rejections are respectfully requested.

It is now believed that all of the claims are allowable with respect to the examined species. Accordingly, the Applicant respectfully requests that the Office examine the remaining species.

**V. CONCLUSION**

All of the stated grounds of objection and rejection are believed to have been properly overcome, traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. An early notice indicating the allowability of claims 12-22, 26-28, 32-33, 38-40, and 44-49 is respectfully requested.

The Examiner is respectfully requested to contact Applicant's undersigned Representative if necessary to place the application in condition for allowance.

Prompt consideration and allowance of the application is respectfully requested.

Respectfully submitted,

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